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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,498	11/13/2001	Arnaud Gueguen	215352US2PCT	6655
22850	7590	01/13/2004		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CHEN, TE Y	
			ART UNIT 2171	PAPER NUMBER 7
DATE MAILED: 01/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

PR4

Office Action Summary	Application No.	Applicant(s)	
	09/926,498	GUEGUEN ET AL.	
	Examiner	Art Unit	
	Susan Y Chen	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u> </u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3 & 5</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-9 are presented for examination,

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

The certified copy has been filed in parent Application No FRANCE 0003339, filed on 03/13/2000.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 02/07/2002 and 02/13/2002 are in compliance with the provisions of MPEP § 609. It has been placed in the application file.

Accordingly, the information referred to therein has been considered as to the merits. (see attached form).

Specification

5. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification. Also, it is noted that the instant claims contains no line number. The preferred citation format for the claims is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both Examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, the lack and misuse of punctuation mark makes the lengthy claim difficult to determine exactly which units are connected to which units and which units perform which functions, for example, see lines 16-21.

As to claims 2-9, these claims have the same defects as their base claim, thus, are rejected for the same reason.

Due to the ambiguous nature of the claims, the following art rejection -- 35 USC § 102 (e) is made as to the best as the examiner is able to ascertain.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,370,669 issued to Eroz et al. (hereinafter referred as '669 Eroz).

Claim 1:

'669 Eroz discloses the following as claimed by applicant, comprising:

- a automatic digital transmission method of error correction via Turbo code encoding and decoding processing [e.g. Abstract; col. 5, lines 11-17; Fig. 1], wherein, the method comprising:
 - a coding procedure [e.g. Turbo Code Encoder (208), Fig. 2; Fig. 3] to generate a coded information item with redundancy for transmission efficiency optimizing [e.g. col. 2, lines 1-9; lines 36-40, lines 48-56]; therein, the coding procedure includes at least two elementary coding units [e.g., the Constituent Encoder #1 (306), the Constituent Encoder #2 (308), Fig. 3] couple to the respective puncturing units [e.g., the Puncture (312), Fig. 3], an modifiable interleaving processing [e.g., the processing of Interleaver (304), Fig. 3] taking place between two successive elementary coding units for producing the efficiency coded output from an input unit [e.g. the Info Bits (302), Fig. 3] via the corresponding puncturing [e.g. col. 2, lines 9-14; col. 6, lines 28-43].
 - A iterative soft-decision decoding procedure [e.g., see the processing of the First Constituent Decoder (406), the Second Constituent Decoder (416), Fig. 4; col.1, lines 63-67] to de-interleaving and de-puncturing

the generated output from the corresponding coding elementary coding units for yielding an optimized bit error rate performance [col.1, lines 63-67; col. 2, lines 6-14; col. 6, lines 43-52].

- o A transmission method [the rate-compatible Turbo Codes transmission method, col. 3, lines 41-52] coupled to a redundancy distribution selection step [e.g. the rate matching schema, col. 9, lines 64] to observing the transmission condition in order to determine at least one parameter characteristic of the transmission condition [e.g., the payload of an available physical channel, col. 19, line 63] in order to adapt the coding and decoding procedures as a function of the selected redundancy distribution schema [e.g., col. 9, lines 60 – col. 20, line 37].

Claim 2:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The step of adapting coding/decoding procedure modifies the puncturing and interleaving steps of the coder/decoder as a function of the selected redundancy distributing schema [e.g., see col. 20, lines 1-37].

Claim 3:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The step of adapting coding/decoding procedure eliminates one or more elementary coding steps of the puncturing and interleaving of the coding/decoding as a function of the selected redundancy distributing schema [e.g., see col. 20, lines 1-37].

Claim 4:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The step of adapting coding/decoding procedure modify one or more remaining elementary coding steps of the puncturing and interleaving of the coding/decoding as a function of the selected redundancy distributing schema [e.g., see col. 20, lines 1-37].

Claim 5:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The elementary coding steps use convolution codes [col. 1, lines 59-62].

Claim 6:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The elementary coding steps use block codes [col. 1, lines 63-67].

Claim 7:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The transmission condition parameter can be the bit error, packet error rate, signal/noise ratio, etc. [e.g., col. 1, lines 25-27, col. 5, line 20-22].

Claim 8:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The transmission condition observation step and redundancy selection step are executed at a transmitter [e.g., the Mobile RF Transmitter (118), Fig. 1].

Claim 9:

Except the features discussed above, '669 Eroz further discloses the following as claimed by applicant, comprising:

The transmission condition observation step and redundancy selection step are both executed at a transmitter and a receiver [e.g., the Base RF Receiver (124), Fig. 1]

Conclusion

8. To expedite the process of examination, the examiner requests that all future correspondences in regard to overcoming prior art rejections or other issues (e.g. 35 U.S.C. 112) set forth by the Examiner prior to the office action, that applicant should provide and link to the most specific page and line numbers of the disclosure where best support is found (see 35 U.S.C. 132).

Art Unit: 2171

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as following: U.S. Patent No. 6,389,574 issued to Belveze et al. The subject matter disclosed therein is pertinent to a system for detecting a discrete symbol sequence from an observation signal and a Viterbi algorithm of Turbo codes.


Inquiry

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Y Chen whose telephone number is (703) 308-1155. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (703) 308-1436. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-6296.

Susan Chen
Jan. 9, 2004


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AU 2171